

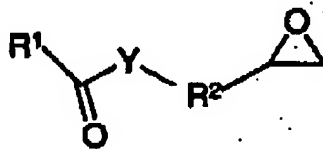
Amendment and Response to Office Action
U.S. Serial No.: 10/018,727
Filed: August 9, 2002
Page 3 of 11

Amendments to the Claims:

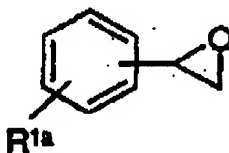
This listing of claims will replace all prior versions, and listings, of the claims in the application.

Claims Listing

1. (Currently amended) A method for applying a reactive epoxy containing coating to a substrate, said method comprising subjecting said substrate to a pulsed plasma discharge in the presence of a compound of formula (I) or (IA)



(I)



(IA)

where R^1 or R^{1a} is a hydrocarbyl group, optionally substituted by a halo group, or a heterocyclic group;

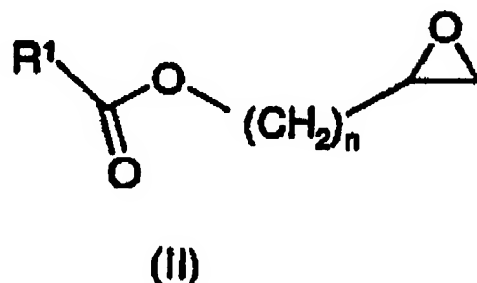
R^2 is a straight or branched alkylene chain, optionally substituted by a halo group; and

Y is oxygen or a bond,

wherein an average power density of the pulsed plasma discharge is less than 0.05 W/cm^3 .

Amendment and Response to Office Action
U.S. Serial No.: 10/018,727
Filed: August 9, 2002
Page 4 of 11

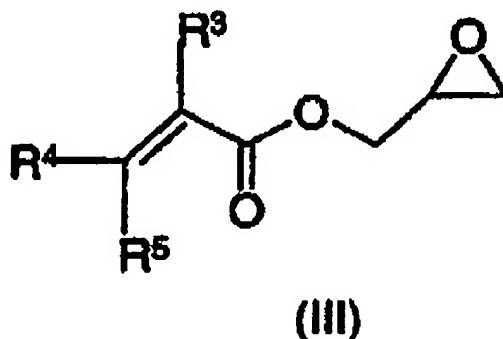
2. (Previously Presented) A method according to claim 1 wherein the epoxy containing organic compound is a compound of formula (II)



where R¹ is as defined in claim 1 and n is an integer of from 1 to 20.

3. (Previously Presented) A method according to claim 2 wherein, in the compound of formula (II), n is 1 to 3.

4. (Previously Presented) A method according to claim 3 wherein the compound of formula (II) is a compound of formula (III)



where R³, R⁴ and R⁵ are independently selected from hydrogen or C₁₋₆alkyl.

5. Cancelled.

6. Cancelled.

Amendment and Response to Office Action
U.S. Serial No.: 10/018,727
Filed: August 9, 2002
Page 5 of 11

7. (Previously Presented) A method according to claim 1 wherein the pulsed plasma discharge is applied such that power is on for 20 μ s and off for from 10000 μ s to 20000 μ s.

8. (Withdrawn) A substrate having an epoxy containing coating thereon, obtained by a process according to claim 1.

9-11. Cancelled.

12. (Previously Presented) A method for immobilisation of a nucleophilic reagent at a surface, said method comprising the application of a reactive epoxy containing coating to said surface by a method according to claim 1, and then contacting the surface with a solution of said nucleophilic reagent under conditions such that the nucleophilic reagent reacts with the epoxy groups.

13. (Withdrawn) A method for adhering two surfaces together, said method comprising applying a reactive coating to at least one of said surfaces by plasma deposition, and contacting said surface with the other surface under conditions whereby reactive groups in the coating will react so as to secure the two surfaces together.

14. (Withdrawn) A method according to claim 13, wherein the applying of the reactive coating to at least one of the said surfaces is performed using a method according to claim 1.

15. (Withdrawn) A method according to claim 13 comprising the applying of a reactive coating to both said surfaces by plasma deposition, introducing a coupling agent

Amendment and Response to Office Action
U.S. Serial No.: 10/018,727
Filed: August 9, 2002
Page 6 of 11

between said surfaces, and allowing said coupling agent to react with reactive groups on each surface.

16. (Withdrawn) A method according to claim 15 wherein the reactive groups are epoxide groups.

17. (Withdrawn) A method according to claim 15 wherein said coupling agent is a diamine.

18. (Withdrawn) A method according to claim 13 wherein said other surface includes nucleophilic groups able to react with said reactive groups so as to bring about adhesion.

19. (Withdrawn) A method according to claim 18 wherein said nucleophilic groups are selected from amino or carboxylic acid groups.

20. (Withdrawn) A method for applying a reactive epoxy containing coating to a substrate substantially as hereinbefore described with reference to example 1.

21. (Previously Presented) The method of Claim 12, wherein the nucleophilic reagent is a carboxylic acid or amine.